

The 3rd International Conference on Physical Instrumentation and Advanced Materials (ICPIAM) 2021

Wednesday, October 27th 2021
Universitas Jember, East Java, Indonesia

Schedule

Join Zoom Meeting https://unej-id.zoom.us/j/95132445925 Meeting ID: 95132445925		
Time	Program	
07:45 – 08:30	Opening Ceremony Welcome address by the Organizer Welcome address by the Rector of University of Jember Photo Session	
08:30 – 09:00	Plenary Lecture 1 ♦ Dr. M.V. Reddy Institute of Research Hydro-Quebec – Canada “Recent Advances in Nanomaterials and Its Energy Storage and Conversion Applications”	Moderator: Dra. Arry Yuariatun, M.Si.
09:00 – 09:30	Plenary Lecture 2 ♦ Prof. Tamio Oguchi, Center for Spintronics Research Network - Osaka University – Japan “Crystal Structure Classification by Similarity”	
09:30 – 10:00	Plenary Lecture 3 ♦ Prof. Dr.Eng. Khairurrijal, M.Si. Department of Physics - ITB – Indonesia “Polyvinyl Alcohol Hydrogels as Controlled-Release Materials for Indonesian Red Betel or Guava Leaves Extracts”	
10.00 – 10:30	Discussion 1	
10:30 – 11:00	Plenary Lecture 4 ♦ Prof. Dr. Rozaini Bin Roslan Universiti Tun Hussein Onn Malaysia “Fractional Derivatives for Biomagnetic Fluid Dynamics”	Moderator: Andi Hamim Zaidan, M.Si. Ph.D.
11:00 – 11:30	Plenary Lecture 5 ♦ Dr. Rakibuzzaman Shah Federation University – Australia “Future of Energy Research in Asia-Pacific Region”	



11:30 – 12:00	Plenary Lecture 6 ❖ Agung Tjahyo Nugroho, Ph.D Department of Physics - Universitas Jember – Indonesia “The Application of Newton Methods in Solving Microwave Inverse Problem ‘	
12:00 – 12:30	Discussion 2	
12:30 – 13:00	Break	
13.00 – 16.00	Parallel Session (Breakout room)	
16.00 – 17.00	Closing Ceremony (in the main room)	



PARALLEL SESSION

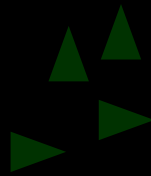


ROOM 1

Material Science and Engineering

Moderator : Drs. Imam Rofi'I, M.Sc.

Time	Paper Code	Title	Presenter
13.00 –13.15		Briefing	Moderator
13.15 –13.30	3rd ICPIAM_4	Failure Analysis of Glass/Epoxy Laminates Due to Diamond Cutouts Shape Under Uniaxial Tension	Jamaliah Md Said, Aidah Jumahat and Jamaluddin Mahmud
13.30 –13.45	3rd ICPIAM_6	Synthesis of TiO ₂ -Clay Composites to Reduce TDS Levels in Tofu Industrial Wastewater	Aisyah Qusnul Khotimah, Sutisna, Edy Supriyanto, Edy Wibowo and Mamat Rokhmat
13.45 –14.00	3rd ICPIAM_10	Synthesis Of TiO ₂ - Activated Carbon Composite (Variation Of Activated Carbon Particles Size) and Its Photocatalytic Tests	Dewi Murtasima, Sutisna , Bowo Eko Cahyono, Edy Wibowo and Mamat Rakhmat
14.00 –14.15	3rd ICPIAM_12	Diazinon Pesticide Degradation Using TiO ₂ -Active Carbon Composite	Dwi Putri Salsabillah, Sutisna, Sujito, Edy Wibowo and Mamat Rokhmat
14.15 –14.30	3rd ICPIAM_13	Synthesis of TiO ₂ -AC/PP Catalyst System : Effect of Mass Fraction	Hanif Mufti Al Islam, Sutisna, Lutfi Rohman, Edy Wibowo and Mamat Rokhmat
14.30 –14.45	3rd ICPIAM_23	The Effect of Synthesized Rice Husk Ash to Compressive Strength of Reactive Powder Concrete Containing Quartzite Powder	Yulius Rief Alkhaly, Abdullah, Husaini and Muttaqin Hasan
14.45 –15.00	3rd ICPIAM_24	The Crystallite Size, Strain, and Dislocation Studies of Barium Titanate Powders and Influenced by the Polyvinyl Alcohol and Temperature	Jan Ady and Arum A. Nurpratiwi
15.00 –15.15	3rd ICPIAM_27	Evaluation of Ti ₆ Al ₇ Nb Femoral Stem Fabricated by Centrifugal Investment Casting using Fatigue Test	Aghni Ulma Saudi, Mirza Wibisono, Winda Rianti, Bambang Triwibowo, Damisih, Dwi Gustiono, Nurlina, Muhammad Kozin and I Nyoman Jujur
15.15-15.30	3rd ICPIAM_48	Characterization of Crystal Structure and Mechanical Properties of Polycaprolactone-Hydroxiapatite-Collagen Nanofibers as Anterior Cruciate Ligament (ACL) Scaffold	Faika Hanum Salsabila, Djony Izak Rudiarto, Sofijan Hadi, Tahta Amrillah and Aminatun Aminatun
15.30-15.45	3rd ICPIAM_55	Physical Characterization in the Fabrication of Taper Structured Fiber Optic Sensors	Frazna Parastuti, Dyah Hikmawati and Herri Trilaksana
15.45-16.00	3rd ICPIAM_56	Tensile and Flexural Properties of Green Composite Materials Based on Pineapple Leaf Fiber/Bagasse Fiber Hybrid and Polylactic Acid Matrix	Andhika Achmad, Sujito, Edy Supriyanto, Imam Rofi'I, Sutisna, Mochamad Asrofi, R.A. Ilyas and S.M. Sapuan

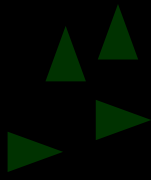


ROOM 2

Computational Science and Engineering

Moderator : Dr. Lutfi Rohman, S.Si., M.Si.

Time	Paper Code	Title	Presenter
13.00 –13.15		Briefing	Moderator
13.15 –13.30	3rd ICPIAM_9	The Target of Sars-Cov-2: Energy Analysis of N3 Ligand Binding and Natural Compounds (Curcumin) with Molecular Dynamics Using Charmm Force Field	Riyan Hidayat, Lutfi Rohman and Artoto Arkundato
13.30 –13.45	3rd ICPIAM_16	Size Optimization of the Fuselage Frame Used in A-19-Passenger Amphibious Aircraft Using Finite Element Method	Fajar Ari Wandono, Josua Sitinjak and Agus Aribowo
13.45 –14.00	3rd ICPIAM_26	Effect of Nitrogen and Argon as Iron Corrosion Inhibitors in Pb-Mg Eutectic	Umi Sa'Adah, Artoto Arkundato and Moh. Hasan
14.00 –14.15	3rd ICPIAM_38	COVID-19 Pandemic Simulation Based on Classical Model Nuclear Decay	Jeremy Pamungkur Dulimar, Samuel Eka Putra Payong Masan, Billy Yudoputro Wijoyo, Herri Trilaksana and Febdian Rusydi
14.15 –14.30	3rd ICPIAM_39	Volume Measurement of Oil Palm Fresh Fruit Bunches Using Computer Vision	Minarni Shiddiq, Herman, Dodi Sofyan Arief, Oktaviandri Prima Yesyaf, Chrisvon Lase, Ikhsan Rahman Husein, Sri Ayunda
14.30 –14.45	3rd ICPIAM_44	Lennard-Jones and Morse Potential Comparison for Studying the Liquid Lead Corrosion	Hildayatul Karimah, Artoto Arkundato and Ratna Dewi Syarifah
14.45 –15.00	3rd ICPIAM_46	Study of Physical Properties of Liquid Lead Bismuth Using Molecular Dynamics Method	Artoto Arkundato, Zaki Su'Ud, Ratna Dewi Syarifah and Mohammad Ali Shafii
15.00 –15.15	3rd ICPIAM_19	Finite Element Analysis of Posterior Leaf Spring Ankle Foot Orthosis for Tibialis Anterior Atrophy Case	Alfian Pramudita Putra, Arief Sofian Hidayat, Akif Rahmatillah, Pujiyanto Pujiyanto and I Putu Alit Pawana
15.15-15.30	3rd ICPIAM_32	Critical Size and Magnetic Properties of Nanocube Geometry of Alloy of Iron Base Ferromagnetic Materials	Lutfi Rohman, Nur Ifa Yuni Lensia, Dyanti Arumdari, Bowo Eko Cahyono and Endhah Purwandari

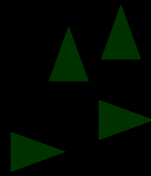


ROOM 3

Microwave Communications and Propagation, RADAR, Wireless Antenna

Moderator : Bowo Eko Cahyono, S.Si., M.Si., Ph.D.

Time	Paper Code	Title	Presenter
13.00 –13.15		Briefing	Moderator
13.15 –13.30	3rd ICPIAM_5	Analysis of Soil Nitrogen Content using RGB Index Derived from Sentinel-2A and In-Situ data in Sugarcane Plantation Land of Jember Regency Area - Indonesia	Bowo Eko Cahyono, Khipiatun Ni'Mah and Agus Suprianto
13.30 –13.45	3rd ICPIAM_17	Oxidative Polymerisation of Polyaniline and Its Microwave Absorbing Properties	Setia Budi, Arum Ayuningsih, Erfan Handoko, Maria Paristiowati and Yana Taryana
13.45 –14.00	3rd ICPIAM_20	S-Shaped Microstrip Antenna Design For 5 Ghz Frequency Wifi	Mutmainnah Mutmainnah, Makhwiyatul Khusnah, Bowo Eko Cahyono, Imam Rofi'I and Misto Misto
14.00 –14.15	3rd ICPIAM_28	Role of Air-Sea Interaction on Propagating of Early Morning Precipitation over the North Coast of West Java	Erma Yulihastin
14.15 –14.30	3rd ICPIAM_31	Simulation Study of Attitude Control Using a Reaction Wheel on an Air Bearing Platform with Anti-Windup Compensator	Harry Septanto, Erma Yulihastin, Edi Kurniawan and Djoko Suprijanto
14.30 –14.45	3rd ICPIAM_36	Ocean Wave Characteristic in the Java Sea Based on Global Reanalysis Data	Dwiyoga Nugroho, Erma Yulihastin and Johan Risandi
14.45 –15.00	3rd ICPIAM_51	Effect of Smoothing Filter on Continuous Time Domain in Consecutive DInSAR	Katsunoshin Nishi, Masaaki Kawai, Bowo Eko and Josaphat Tetuko Sri Sumantyo
15.00 –15.15	3rd ICPIAM_22	Static Characteristics of Ultrasonic Sensor HC-SR 04 and its application in Water Level Control Based on Arduino Uno	Agus Subekti, Bowo Eko Cahyono, Misto and Agung Tjahjo Nugroho

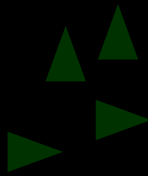


ROOM 4

Biophysics, Medical Physics, and Biotechnology

Moderator : Endhah Purwandari, S.Si., M.Si.

Time	Paper Code	Title	Presenter
13.00 –13.15		Briefing	Moderator
13.15 –13.30	3rd ICPIAM_7	Electrical Properties and Organoleptic Test on Coffee Powder Mixed Robusta Coffe and Soybean	Nanda Mutiara Islami, Misto, Endhah Purwandari and Supriyadi
13.30 –13.45	3rd ICPIAM_29	Identification of Chlorogenic Acid Content of Coffee from Klungkung Jember Plantation Based on Roasting Temperature Variations	Misto, Bowo Eko Cahyono, Dywanti Ariani, Aida Rena Mareta and Supriyadi
13.45 –14.00	3rd ICPIAM_30	Classification of Normal and Abnormal Bladder CT Images Using Support Vector Machine	Monica Nanda Helin, Prawito Prajitno, Djarwani Soeharso Soejoko, Galuh Ayu Treswari and Muhammad Roslan Abdul Gani
14.00 –14.15	3rd ICPIAM_33	Activity detection of chlorophyll of mengkudu (Morinda citrifolia) extract through of the photoinactivation to reducing Streptococcus mutans cells using XTT assay method	Sri Dewi Astuty, Syamsir Dewang, Sri Suryani, Fikhri Astina Tasmara and Rahmadan Riski Wahyudi
14.15 –14.30	3rd ICPIAM_34	Applied The Protocol Automatic Current Modulation (Atcm) To Decreasing Ct Dose Index And Dose-Length Product in The Abdomen Ct Examination	Nurul Jannah Jamal, Sri Dewi Astuty, Syamsir Dewang and Muhammad Ridwar
14.30 –14.45	3rd ICPIAM_40	Elbow Angle Estimation for Medical Rehabilitation Device Based on EMG Sensor with ARIMAX Method	Amelia Lita, I Made Mas Dwiyana Prasetya Wibawa, Alinda Anggraini, Akif Rahmatillah, Riries Rulaningtyas, Alfian Pramudita Putra and Khusnul Ain
14.45 –15.00	3rd ICPIAM_43	Synthesis and Characterization of Cryogel Apple Pectin- Chitosan as Physical Barrier Intraperitoneal Antiadhesion Postsurgical	Prihartini Widiyanti, Adita Wardani Rahmania and Siswanto Siswanto
15.00 –15.15	3rd ICPIAM_59	Effect of Addition of Vegetable Waste on Microbial Fuel Cell	Tri Mulyono, Misto, Bowo Eko Cahyono, and Nanda Hilda Fahmidia
15.15 –15.30	3rd ICPIAM_60	Braided Structure Artificial Ligament from Poly-L-Lactide co-Caprolactone (PLA-CL) for Anterior Cruciate Ligament Injury	Prihartini Widiyanti, Ferisya Kusuma Sari, and Djony Izak Rudyardjo
15.30 –15.45	3rd ICPIAM_21	Study of Spontaneous Emission in GaAs and the Effect Due to Size Modification	Endhah Purwandari, Misto, Faiza Nur Laila and Ayu Kristina

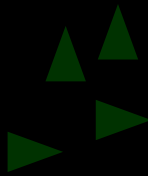


ROOM 5

Theoretical and Nuclear Reactor Physics

Moderator: Dr. Ratna Dewi Syarifah S.Pd., M.Si.

Time	Paper Code	Title	Presenter
13.00 –13.15		Briefing	Moderator
13.15 –13.30	3rd ICPIAM_3	Some Aspects of Modified Hawking Mass for Two-Spheres in Schwarzschild and Reissner-Nordstrom Spacetimes	Flinn C. Radjabaycolle
13.30 –13.45	3rd ICPIAM_15	GPVDM Simulation of Thickness Effect on Power Conversion Efficiency of PEDOT:PSS/P3HT:PCBM Solar Cell Performance	Dita Puspita, Nanang Syaiful Rizal and Ratna Dewi Syarifah
13.45 –14.00	3rd ICPIAM_25	Neutron Flux Distribution of Slab Reactor Core using One-Dimensional Multi-Group Diffusion Equation in the Thermal Energy Region	Mohammad Ali Shafii, Imra Zakiya, Dian Fitriyani, Artoto Arkundato and Ade Gafar Abdullah
14.00 –14.15	3rd ICPIAM_37	The Reason Why Aurum is More Noble than Argentum According to Density Functional Theory Calculations	Eduardus Oldi Kristianto, Samuel Eka Putra Payong Masan, Andi Hamim Zaidan, Herri Trilaksana and Febdian Rusydi
14.15 –14.30	3rd ICPIAM_53	Neutronic Investigation of SiC as an Accident Tolerant Fuel Cladding Material for Light Water Reactors	Abu Khalid Rivai, Ferhat Aziz, Mardiyanto Panitra and Andon Insani
14.30 –14.45	3rd ICPIAM_54	Characterization of AISI 316L Austenitic Steel Using Neutron Diffraction Technique	Abu Khalid Rivai and Tri Hardi Priyanto
14.45 –15.00	3rd ICPIAM_42	Neutronics Analysis Uranium Carbide Fuel for 300 MWth PWR using SRAC-COREBN Code with Addition Neptunium 237	Arindi Kumala Sari, Ratna Dewi Syarifah, and Artoto Arkundato



ROOM 6

Geophysics, Environmental Physics, Remote Sensing and GIS, Earth Sciences, Imaging and Image Processing

Moderator : Agung Tjahjo Nugroho, S.Si., M.Phil., Ph.D.

Time	Paper Code	Title	Presenter
13.00-13.15		Briefing	Moderator
13.15-13.30	3rd ICPIAM_14	Preliminary Study Utilization of Resistivity Method to Identify Soil Types for Agricultural Purposes	Intan Ismawati, Nurul Priyantari and Agus Suprianto
13.30 –13.45	3rd ICPIAM_35	Data Processing on 1d Data Sounding Resistivity Using Curve Matching Ogunbo's Code	Ryan Andersen Jaya Sentosa, Supriyadi Supriyadi and Nurul Priyantari
13.45 –14.00	3rd ICPIAM_41	The Potential Use of a Hybrid Human-Detector for Physical Distance Monitoring	Agung Tjahjo Nugroho and Nikmatul Ulfa Sari
14.00 –14.15	3rd ICPIAM_45	Identification of Blawan-Ijen Fault Based on GGMplus Gravity Data Using Second Vertical Derivative (SVD) Analysis	Supriyadi, Vina Soraya, Agus Suprianto and Nurul Priyantari
14.15 –14.30	3rd ICPIAM_50	Fajr Identification Based on Hue Histogram of Astrophotography Imagery	Niswatul Kariimah, Agus Naba and Sugeng Rianto
14.30 –14.45	3rd ICPIAM_57	Joint Interpretation Global Gravity Model plus with Seismic Interpretation at Kradenan Mud Volcano Area, Purwodadi, Central Java	Budi Eka Nurcahya and Mochamad Aryono Adhi,
14.45 –15.00	3rd ICPIAM_58	Effect of Smoothing Filter on Continuous Time Domain in Consecutive DInSAR	Katsunoshin Nishi, Masaaki Kawai, Bowo Eko and Josaphat Tetuko Sri Sumantyo
15.00 –15.15	3rd ICPIAM_47	Utilization of Satelite Gravity Data to Modeling the Sub-Surface Structures of Mount Lamongan and Surroundings	Agus Suprianto, Achmad Hidayat, Supriyadi and Nurul Priyantari
15.15 –15.30	3rd ICPIAM_18	Synthesis and Characterization of Nylon/TiO ₂ Hybrid Membrane for Improving the Electrical Conductivity and Activation Energy	Wenny Maulina, Laily Mumtahana, Nurul Octavia Hijriyatur Rohmah, Lutfi Rohman and Artoto Arkundato

